DEPARTMENT OF THE INTERIOR
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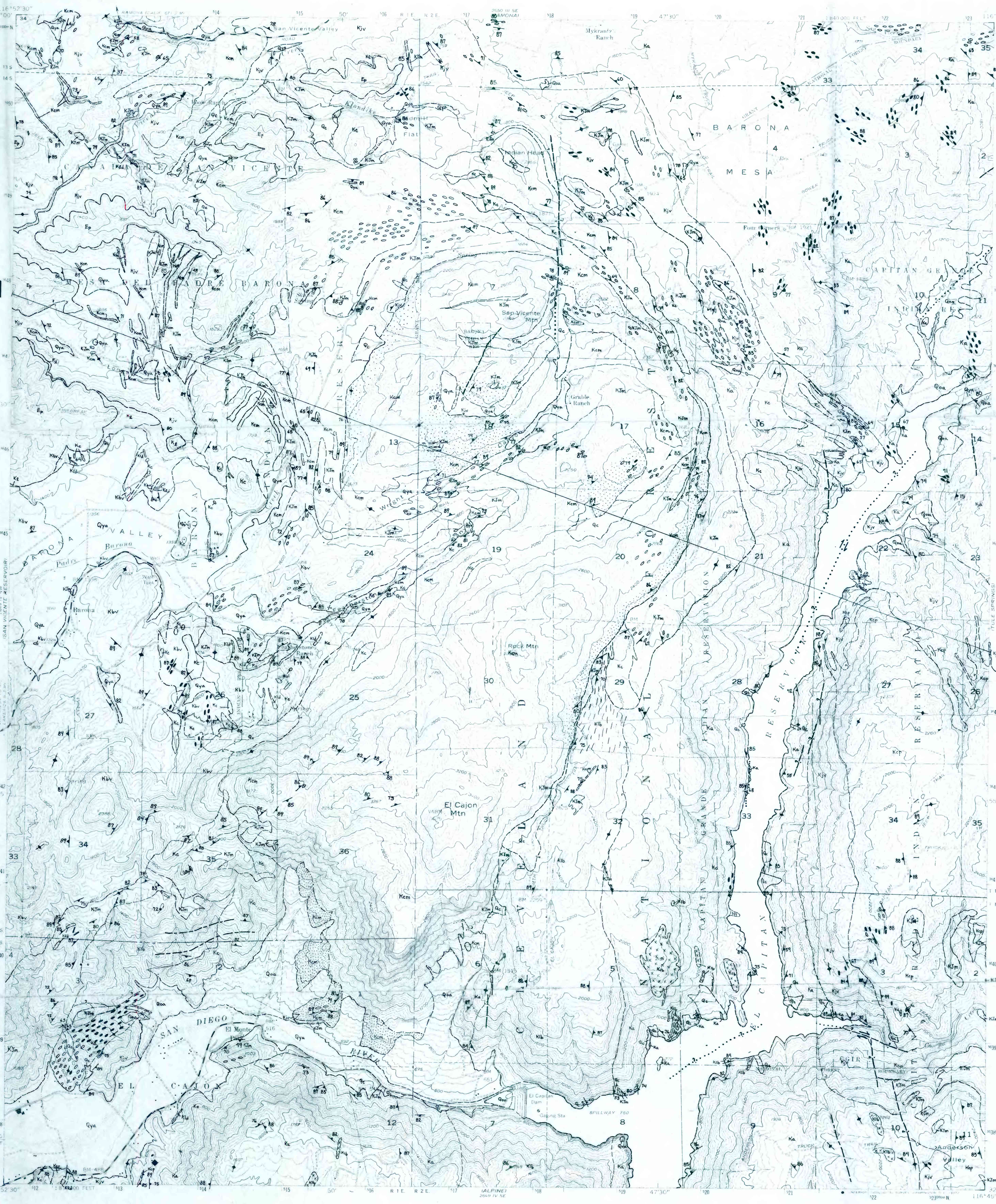

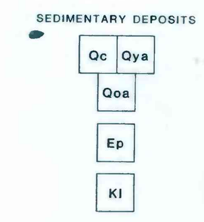

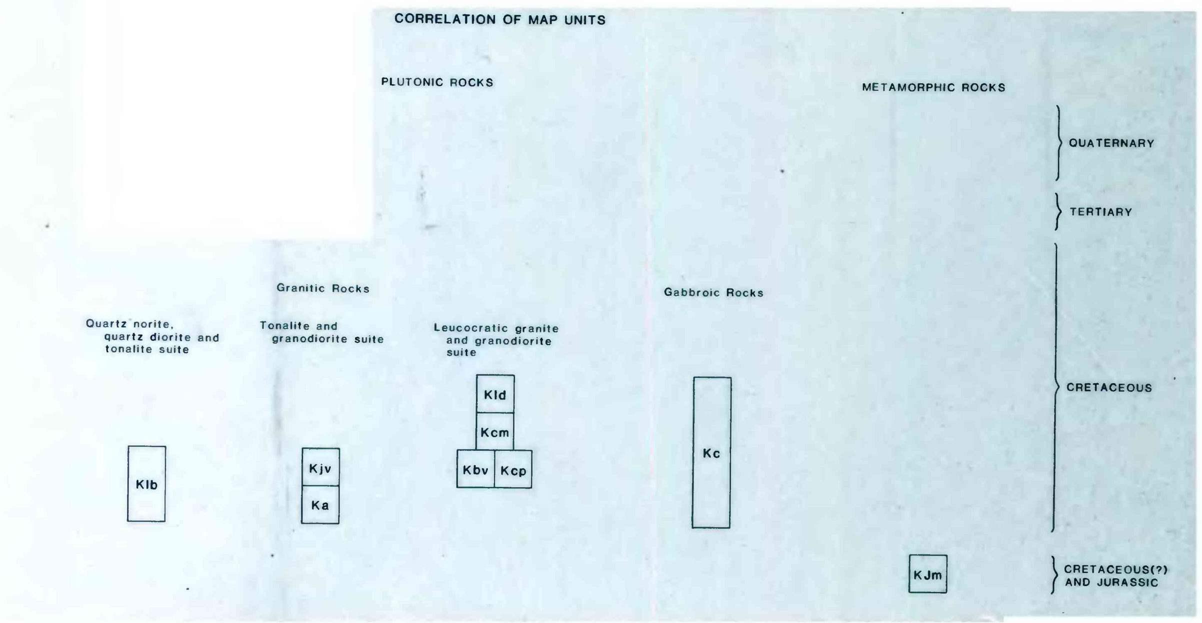

DESCRIPTION OF MAP UNITS

SEDIMENTARY DEPOSITS

Qc — Colluvium (Quaternary)--Gravel, sand, and silt

Qya — Younger alluvium (Quaternary)--Gravel, sand, and silt

Qoa — Older alluvium (Quaternary)--Gravel, sand, silt, and clay

Ep — Poway Group (Eocene)--Fluvial conglomerate

Kl — Lusardi Formation (Upper Cretaceous)--Debris flow deposits that consist of boulders, sand, and silt

PLUTONIC ROCKS

Leucocratic granite and granodiorite suite

Kld — Pegmatite, alaskite, and aplite (Cretaceous)--Leucocratic dikes

Kcm — Granite of Corte Madera (Cretaceous)--Hornblende-biotite leucogranite and leucogranodiorite; stipple pattern indicates fine-grained marginal facies with partly assimilated wall-rock inclusions

Kbv — Granite of Barona Valley (Cretaceous)--Biotite granite

Kcp — Granite of Chiquito Peak (Cretaceous)--Hornblende-biotite granite and granodiorite

Tonalite and granodiorite suite

Kjv — Tonalite of Japatul Valley (Cretaceous)--Biotite-hornblende tonalite and hornblende-biotite granodiorite

Ka — Tonalite of Alpine (Cretaceous)--Biotite (± pyroxene)-hornblende tonalite

Quartz norite, quartz diorite, and tonalite suite

Klb — Quartz norite and tonalite of Las Bancas (Cretaceous)--K-feldspar-bearing hornblende-biotite-pyroxene quartz norite and tonalite; dashes indicate marginal hornblende tonalite; x pattern indicates hypabyssal pyroxene granodiorite and tonalite

GABBROIC ROCKS

Kc — Cuyamaca Gabbro (Cretaceous)--Peridotite, olivine gabbro, hornblende gabbro, and norite

METAMORPHIC ROCKS

KJm — Metasedimentary and metavolcanic rocks (Cretaceous? and Jurassic)--Quartzo-feldspathic, micaceous semischistose rock and schist; micaceous, feldspathic quartzite; black amphibolite; metamorphosed felsic tuff-breccia; calc-silicate rock and metaconglomerate; flattened ellipses indicate concordant granitic gneiss bodies

Inclusions of fine-grained mafic rock and gabbro in granitic plutons (composing as much as 50 percent of the rock)

Inclusions of prebatholithic rocks in granitic plutons (including migmatite)

Contact, dashed where approximately located, queried where indefinite, dotted where concealed; internal contact within pluton shown by dot and dash line.

High-angle fault, dashed where approximately located or inferred, queried where probable, dotted where concealed; arrows indicate apparent sense of lateral displacement.

Fault or lineament from aerial photographs, not checked or identified on ground

Zone of brittle shear

Strike and dip of inclined foliation in crystalline rocks — 82

Strike and dip of vertical foliation

BASE FROM
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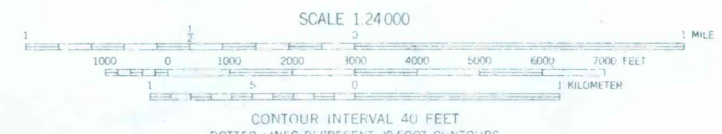
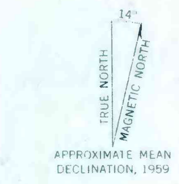
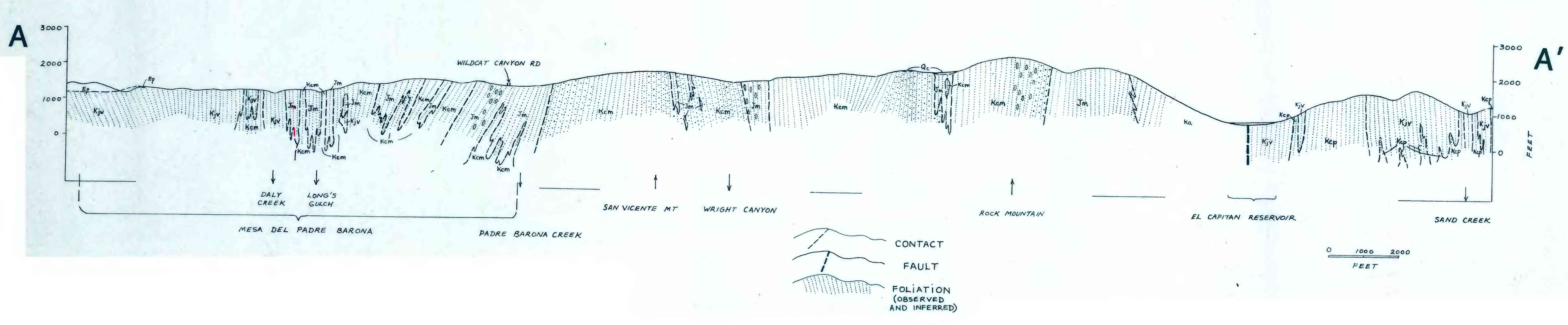




GEOLOGY MAPPED IN
1980-1982



This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.

GEOLOGIC MAP OF THE EL CAJON MOUNTAIN QUADRANGLE, SAN DIEGO COUNTY, CALIFORNIA

by VICTORIA R. TODD 1983